

ABSTRACT OF SANITARY REPORTS.

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UNITED STATES.

SPECIAL REPORTS.

Influenza and allied diseases.

NEW YORK, N. Y.—Week ended February 15. Nine deaths from influenza.

CHICAGO, ILL.—Week ended February 15. Lung diseases prevail.

PHILADELPHIA, PA.—Week ended February 8. Fifteen deaths from influenza, 15 from bronchitis, 52 from inflammation of lungs, and 56 from phthisis pulmonalis.

BROOKLYN, N. Y.—Week ended February 15. Sixty-nine deaths from pneumonia, 55 from phthisis pulmonalis, and 19 from bronchitis.

BALTIMORE, MD.—Week ended February 15. Twenty-four deaths from phthisis pulmonalis, and 3 from inflammation of bronchi.

CINCINNATI, OHIO.—Week ended February 15. Phthisis pulmonalis caused 19 deaths; bronchitis, 9; and pneumonia, 18.

NEW ORLEANS, LA.—Week ended February 1. Influenza caused 1 death; phthisis pulmonalis, 14; bronchitis, 9; and pneumonia, 3.

Week ended February 8. Phthisis pulmonalis caused 9 deaths; bronchitis, 2; and pneumonia, 7.

PITTSBURGH, PA.—Week ended February 8. Over one-fourth of the death rate was from pneumonia.

CLEVELAND, OHIO.—Week ended February 1. Phthisis pulmonalis caused 8 deaths; pneumonia and congestion of lungs, 45; and bronchitis, 7.

INDIANAPOLIS, IND.—Week ended February 14. There were 4 deaths from influenza. The disease is abating.

TOLEDO, OHIO.—Week ended February 14. One death from influenza.

NASHVILLE, TENN.—Week ended February 15. Seven deaths from acute diseases of the lungs, and 3 from consumption.

WILMINGTON, DEL.—Week ended February 15. Phthisis pulmonalis and pneumonia are the principal causes of death.

PORTLAND, ME.—Week ended February 8. The death rate for the week proper has fallen to the normal.

YONKERS, N. Y.—Week ended February 7. Pneumonia is the chief cause of death this week.

NEWPORT, R. I.—Week ended February 6. One death from influenza and 1 from bronchitis.

Week ended February 13. Phthisis pulmonalis caused 1 death, and bronchitis 1.

The influenza in southern California.

Dr. P. C. Remondino, president of the board of health of San Diego, reports that over one-half of the population (estimated at over 32,000) have been affected with the influenza without a single fatal case. Many of those attacked were pulmonary invalids. The disease did not present the usual symptoms of influenza, although the characteristic headache was generally present. The majority of the cases were rather of the character of dengue. Children suffering with the disease were taken, as a rule, with high fever and headache, and this was followed by a bronchial and laryngeal cough of some days' duration, coming in severe paroxysms like whooping-cough; but recovery took place in nearly every instance without any of the prostration or secondary results that have in most instances followed recoveries in adults. Former subjects of malarial poisoning have made slower recoveries than others. In them the resulting prostration was more marked and of longer duration with a tendency to neuralgia and pharyngitis, more or less persistent, as secondary affections. Dr. Remondino attributes the happy results obtained during the prevalence of the epidemic to the immunity enjoyed in this climate from catarrhal diseases generally, and to a like immunity given by the climate from the usual complications following a prostration of the physical powers.

Influenza in Michigan.

U. S. MARINE-HOSPITAL SERVICE,
Ludington, Mich., February 12, 1890.

SIR: I have the honor to report as follows: Our city has a population of 9,000. Fully one-half of our citizens have had the influenza. The symptoms generally were fever, pain in the head and extremities, muscular pain in both sides, often sore throat, and great prostration. The best general treatment found was antifebrine and salicylate of soda in small doses, frequently given, together with tincture belladonna. It was observed here that all persons using capsicum with their daily food did not have the disease.

We had only four deaths directly traceable to the influenza. Our schools, in consequence of the grippe, closed two weeks. Only one seaman coming to this port had it. It is now rapidly declining in its fourth week of visitation.

Very respectfully,

A. P. McCONNELL,
Acting Assistant Surgeon, M.-H. S.

• *Reports of States, and Yearly and Monthly Reports of Cities.*

ALABAMA—*Mobile*.—Month of January, 1890. Population, 40,000. Total deaths 49, including croup, 1.

Phthisis pulmonalis caused 7 deaths; bronchitis, 1; pneumonia, 2; and congestion of lungs, 1.

CALIFORNIA.—Reports to the State board of health from ninety-four localities, having an estimated population of 801,700, show a total of 1,385 deaths, corresponding to an annual rate of 20.64 a thousand, which is the highest rate for years. The *Monthly Circular* says:

The greatly increased mortality is not owing to any epidemic of what is usually called zymotic diseases, but is attributable to a mysterious pandemic influence which renders the human system particularly liable to pulmonary disorders, and particularly fatal to those whose lungs are already diseased or which take on acute inflammation. We find, for instance, that during the month of January—

Consumption was fatal in 270 instances. This is double the usual monthly mortality from this disease, and exemplifies the depressing influence of the epidemic catarrh which is now passing over the State.

Pneumonia caused no less than 228 deaths, which is more than double the usual monthly mortality. In San Francisco the deaths from this cause were 141, and in Los Angeles, where the climate is particularly favorable in these cases, the deaths numbered 18; in Sacramento, with an equally good climate, the deaths were 7; and in Santa Barbara 5 deaths occurred from this cause.

Bronchitis is credited with 57 deaths, which is also a large increase over former reports.

Congestion of the lungs caused 27 deaths, which is likewise in marked excess of the usual fatality.

Whooping-cough caused but 1 death.

Diphtheria and croup, collectively, caused 40 deaths, which is a slight increase over the report for December.

Scarlet fever caused 5 deaths in San Francisco, 1 death in Alameda, and 1 in Santa Barbara.

Measles was fatal in 4 instances—2 in San Francisco, 1 in Angels Camp, and 1 in Pleasanton.

Twenty-eight deaths are reported from typhoid fever, which is a decrease of one-half from the mortality reported during December.

Prevailing Diseases.—Reports received from 98 different localities in the State indicate an extremely limited prevalence of zymotic diseases, such as diphtheria, scarlet fever, measles, typhoid, and kindred specific afflictions, those mentioned being few in number and sporadic in character, whereas diseases of the respiratory organs, dependent in

some measure upon meteorological conditions, exhibit a frequency and fatality which is phenomenal in this State. That this is owing to the great pandemic wave of epidemic catarrh, which is now spreading all over the State, rendering the populace more susceptible to inflammatory affections of the lungs, may be accepted as the probable explanation of the unusual frequency of the respiratory diseases which have prevailed during the past month. Those suffering from consumption were affected in a remarkable degree, prostration being the most noticeable symptom, and this often so severe that death ensued in a few days.

Sacramento.—Month of January, 1890. Population, 35,000. Total deaths, 51, including croup, 1.

Phthisis pulmonalis caused 10 deaths; pneumonia, 9; and bronchitis, 3.

CONNECTICUT.—Month of January, 1890. Reports to the State board of health from 165 cities and towns show an aggregate of 1,648 deaths during the month. This was 700 more than in December, and 756 more than in January, 1889, and 718.6 more than the average in January for the preceding five years.

The following diseases were more fatal in January than in December, viz: Influenza, small-pox, measles, scarlet fever, whooping-cough, erysipelas, typhoid fever, consumption, pneumonia, and bronchitis.

The following diseases were less fatal in January than in the preceding month, viz: Cerebro-spinal fever, diphtheria and croup, malarial fevers and diarrhœas.

The *Monthly Bulletin* for January says:

Epidemic influenza has prevailed in every place in the State from which reports have been received. And wherever the time of invasion is mentioned, it is said to have been about the last week in December.

Such an universal and synchronous occurrence of an epidemic throughout the country, almost with the suddenness of an explosion, is utterly inconsistent with the possibility of depending upon personal contagion, particularly if any period of incubation is allowed. While its rapid spread seems incompatible with any known means of communication, every plausible theory of its extension which has been suggested involves an aerial or atmospheric medium of infection. No facts have yet been discovered from which a positive conclusion as to the special cause of the disease can be established. Nor is any precaution known by means of which the infection can be avoided or its prevalence restricted.

Having regard for its almost universal impression, in some form, upon the public health, it is to be called a mild epidemic; that is, of the whole number affected only a few are seriously sick, and the total deaths attributed to it have numbered only 38. But regarding it from another standpoint—that is, from the actual results which may fairly be attributed to it, without reference to the numbers concerned, it is the most disastrous and fatal epidemic which has afflicted Connecticut in many years. Although the fatality directly attributed to it is not large, yet the increased mortality from other diseases, particularly of the lungs, presumably aggravated by this epidemic, is unprecedented. There

were 396 deaths from pneumonia in January ; 97 were reported from bronchitis and 199 from consumption.

The total mortality during the month exceeded any previous experience in a single month in the history of the State.

Small-pox has again appeared in Connecticut, after a temporary absence, and has broken out in several towns of the State, with a few fatal consequences.

Possibly an occasional outbreak of this dreaded malady is not an event altogether bad in its influences. There are several ways in which, by the sacrifice of a few citizens, such public action has resulted as has doubtless preserved many other lives. Thus the indifference to the importance of vaccination in the public mind grows so rapidly when for a short period the public are exempt from small-pox that the only thing which will induce a renewal of the practice is an occasional human victim of the disease.

It may, therefore, be well that the intervals between these sacrifices for the public good should not be too long, lest the neglect of vaccination should make so large a part of the people unprotected that when the disease did come it would find victims in every household.

Again, there is nothing known in the experience of this State that will animate a local board of health like a case of small-pox within its jurisdiction. Boards which have been in a state of profound hibernation through all seasons for many years have been aroused into the most exalted activity, as if by an electric shock, when a small-pox case has been reported to them. And in some cases this recovery from general paralysis has been more or less permanent, with corresponding benefit to the communities they served.

ILLINOIS—Chicago.—Month of January, 1890. Population, 1,100,000. Total deaths, 2,501, including croup, 52; diphtheria, 117; scarlet fever, 17; enteric fever, 53; measles, 3; and whooping-cough, 26.

Phthisis pulmonalis caused 224 deaths; asthma, 14; bronchitis, 159; capillary bronchitis, 73; congestion of lungs, 23; pleuritis, 9; and pneumonia, 518.

Galesburg.—Month of January, 1890. Population, 17,000. Total deaths, 20, including diphtheria, 1.

Phthisis pulmonalis caused 3 deaths and pneumonia 3.

IOWA—Dubuque.—Month of January, 1890. Population, 35,000. Total deaths, 50, including diphtheria, 1; croup, 1; and enteric fever, 1.

Tuberculosis caused 8 deaths; bronchitis, 2; congestion of lungs, 4; and pneumonia, 7.

MAINE—Portland.—Four weeks ending Saturday, February 1, 1890. Population, 42,048. Total deaths, 101, including croup, 2; measles, 1; and whooping-cough, 2.

Phthisis pulmonalis caused 15 deaths; bronchitis, 3; congestion of lungs, 5; and pneumonia, 24.

MASSACHUSETTS—*Fall River*.—Month of January, 1890. Population, 69,000. Total deaths, 170, including croup, 1; diphtheria, 1; enteric fever, 3; and whooping-cough, 8.

Phthisis pulmonalis caused 17 deaths; bronchitis, 17; congestion of lungs, 2; pneumonia, 22; and influenza, 2.

MICHIGAN.—Week ended February 8, 1890. Reports to the State board of health, Lansing, indicate that cerebro-spinal meningitis, puerperal fever, whooping-cough, inflammation of bowels, scarlet fever, and inflammation of kidneys increased, and that cholera infantum, cholera morbus, typho-malarial fever, intermittent fever, measles, and membranous croup decreased in area of prevalence. Diphtheria was reported present during the week at 21 places; scarlet fever at 19 places; enteric fever at 12 places; measles at 10 places; and small-pox at 1 place, Grand Rapids.

Detroit.—Month of January, 1890. Population, 250,000. Total deaths, 406, including croup, 8; diphtheria, 24; enteric fever, 1; scarlet fever, 7; and measles, 3.

Phthisis pulmonalis caused 38 deaths; congestion of lungs, 9; bronchitis, 29; pneumonia, 63; and influenza, 11.

MINNESOTA—*Minneapolis*.—Month of January, 1890. Population, 200,000. Total deaths, 274, including enteric fever, 6; diphtheria, 14; scarlet fever, 8; and whooping-cough, 1.

Phthisis pulmonalis caused 39 deaths; pneumonia, 46; and capillary bronchitis, 20.

MISSOURI—*St. Louis*.—Month of January, 1890. Population, 450,000. Total deaths, 734, including scarlet fever, 10; diphtheria, 13; croup, 9; whooping-cough, 2; and enteric fever, 11.

Phthisis pulmonalis caused 90 deaths; bronchitis, 40; and pneumonia, 94.

Year 1889. Total deaths, 8,004, including measles, 63; scarlet fever, 114; diphtheria, 345; croup, 94; whooping-cough, 55; enteric fever, 146; bronchitis, 337; pneumonia, 598; and phthisis pulmonalis, 655.

OHIO—*Cincinnati*.—Month of January, 1890. Population, 325,000. Total deaths, 678, including croup, 5; diphtheria, 34; measles, 3; scarlet fever, 3; enteric fever, 18; and whooping-cough, 11.

Phthisis pulmonalis caused 99 deaths; bronchitis, 49; pneumonia, 110; and influenza, 12.

RHODE ISLAND.—Month of January, 1890. Reports to the State board of health from towns having an estimated population of 314,810 show a total of 810 deaths, including croup, 9; diphtheria, 22; enteric fever, 10; measles, 11; and whooping-cough, 10.

Phthisis pulmonalis caused 90 deaths; bronchitis, 46; pneumonia, 138; and influenza, 88.

The following is extracted from the *Monthly Bulletin* for February:

Health of the State.—Reports from the medical correspondents in all sections of the State show that for the month of January the "influenza" was by far the most predominant cause of sickness. No town or any considerable proportion of any town had been exempt. The type was also reported as quite unusually severe, and in several respects differed from the usual form, and attended with considerable fatality.

In most of the towns the disease was subsiding at the end of the month. Bronchitis and pneumonia, were also reported from the larger number of the towns as having an unusually large prevalence and of severe type as a rule.

Diphtheria, typhoid fever, measles, scarlatina and whooping-cough were reported from a less number of localities than in the preceding month. Diphtheria had large prevalence in East Providence only. Measles were largely prevalent in Warwick and East Providence, and epidemic in Pawtucket. Whooping-cough was also epidemic in Pawtucket.

Compared with January, 1889, bronchitis, pneumonia, measles, and whooping-cough prevailed to a very much larger extent in 1890, while diphtheria, scarlatina, and typhoid fever were less prevalent.

TENNESSEE—*Nashville.*—Month of January, 1890. Population, 68,531. Total deaths, 98, including croup, 1; enteric fever, 1; and whooping-cough, 1.

Phthisis pulmonalis caused 14 deaths; bronchitis, 3; pneumonia, 16; and influenza, 2.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—										
				Cholera.	Yellow fever.	Small-pox.	Varioid.	Varicella.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping-cough.
New York, N. Y.	Feb. 15.	1,600,935	742	.....	.....	.....	.....	.....	.....	6	11	30	6	13
Chicago, Ill.	Feb. 15.	1,100,000	459	.....	.....	.....	.....	.....	.....	40	4	23	.....	5
Philadelphia, Pa.	Feb. 8.	854,277	461	.....	.....	.....	.....	.....	.....	13	3	19	5	2
Brooklyn, N. Y.	Feb. 15.	852,467	350	.....	.....	.....	.....	.....	.....	4	9	21	.....	3
Baltimore, Md.	Feb. 15.	550,343	181	.....	.....	.....	.....	.....	.....	2	1	3	11	1
St. Louis, Mo.	Feb. 15.	450,000	138	.....	.....	.....	.....	.....	.....	1	.....	5	.....	.....
Boston, Mass.	Feb. 15.	420,000	.....	.....	.....	.....	.....	.....	.....	4	.....	15	.....	.....
Cincinnati, Ohio	Feb. 15.	325,000	115	.....	.....	.....	.....	.....	.....	2	.....	7	.....	.....
New Orleans, La.	Feb. 1.	254,000	119	.....	.....	.....	.....	.....	.....	3	.....	1	.....	2
New Orleans, La.	Feb. 8.	254,000	122	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Washington, D. C.	Feb. 15.	250,000	104	.....	.....	.....	.....	.....	.....	12	7	.....	.....	.....
Pittsburgh, Pa.	Feb. 8.	240,000	99	.....	.....	.....	.....	.....	.....	7	1	4	.....	1
Cleveland, Ohio.	Jan. 25.	240,310	144	.....	.....	.....	.....	.....	.....	3	.....	7	9	1
Cleveland, Ohio.	Feb. 1.	240,310	144	.....	.....	.....	.....	.....	.....	2	1	4	6	3
Rochester, N. Y.	Feb. 15.	130,000	39	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....
Providence, R. I.	Feb. 15.	130,000	53	.....	.....	.....	.....	.....	.....	2	.....	3	.....	1
Indianapolis, Ind.	Feb. 14.	124,410	26	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....
Toledo, Ohio.	Feb. 14.	92,000	34	.....	.....	.....	.....	.....	.....	1	.....	7	.....	.....
Fall River, Mass.	Feb. 15.	69,000	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Nashville, Tenn.	Feb. 15.	68,531	20	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Charleston, S. C.	Feb. 8.	60,145	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington, Del.	Feb. 15.	60,000	17	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Manchester, N. H.	Feb. 15.	43,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Portland, Me.	Feb. 8.	42,000	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Portland, Me.	Feb. 15.	42,000	13	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Galveston, Tex.	Jan. 31.	40,000	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex.	Feb. 7.	40,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Council Bluffs, Iowa.	Feb. 9.	35,000	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
San Diego, Cal.	Feb. 5.	32,000	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yonkers, N. Y.	Feb. 7.	31,000	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Binghamton, N. Y.	Feb. 15.	30,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Altoona, Pa.	Feb. 8.	30,000	10	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Auburn, N. Y.	Feb. 15.	26,000	12	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Newport, R. I.	Feb. 6.	22,200	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Newport, R. I.	Feb. 13.	22,200	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Newton, Mass.	Feb. 15.	22,011	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Keokuk, Iowa.	Feb. 15.	16,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rock Island, Ill.	Feb. 9.	16,000	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

FOREIGN.

(Reports received through the Department of State and other channels.)

GREAT BRITAIN—*England and Wales.*—The deaths registered in 28 great towns of England and Wales during the week ended February 1 corresponded to an annual rate of 22.8 a thousand of the aggregate population, which is estimated at 9,555,406. The lowest rate was recorded in Nottingham, viz, 14.5, and the highest in Manchester, viz, 29.3 a thousand. Diphtheria caused 4 deaths in Salford, 7 in Manchester, 2 in Norwich, and 2 in Leeds.

London.—One thousand eight hundred and forty-nine deaths were registered during the week, including measles, 11; scarlet fever, 14; diphtheria, 24; whooping-cough, 67; enteric fever, 9; and diarrhoea and dysentery, 9. The deaths from all causes corresponded to an annual rate of 21.8 a thousand. Diseases of the respiratory organs caused 550 deaths. In greater London 2,311 deaths were registered, corresponding to an annual rate of 20.9 a thousand of the population. In the "outer ring" the deaths included measles, 4; diphtheria, 9; whooping-cough, 24.

Ireland.—The average annual death rate, represented by the deaths registered during the week ended February 1, in the 16 principal town districts of Ireland, was 41.6 a thousand of the population. The lowest rate was recorded in Newry, viz, 7.00, and the highest in Belfast, viz, 54.6 a thousand. In Dublin and suburbs 294 deaths were registered, including measles, 1; scarlet fever, 1; diphtheria, 2; enteric fever, 4; whooping-cough, 9; and influenza, 6; and typhus, 1.

Scotland.—The deaths registered in eight principal towns during the week ended February 1 corresponded to an annual rate of 25.5 a thousand of the population, which is estimated at 1,314,274. The lowest mortality was recorded in Greenock, viz, 13.8, and the highest in Aberdeen, viz, 32.4 a thousand. The aggregate number of deaths registered from all causes was 661, including measles, 18; scarlet fever, 13; diphtheria, 12; whooping-cough, 26; fever, 9; and diarrhoea, 12.

ITALY—*Catania.*—The United States consul, under date of January 27, says that "influenza is raging in this city, but in a mild form. Almost three-quarters of the population are affected by it."

Leghorn.—February 3. The influenza epidemic has decreased since last report, and the new cases are of a milder nature.

NETHERLANDS.—The deaths registered in the principal cities of the Netherlands, having an aggregate population of 1,154,720, during the month of December, 1889, corresponded to an annual rate of 24.6 a thou-

sand of the population. The deaths included typhus and enteric fever, 5; scarlet fever, 1; measles, 44; croup, 14; diphtheria, 24; whooping-cough, 5; phthisis pulmonalis and throat diseases, 80; and acute and chronic diseases of the respiratory organs, 186.

CUBA—*Havana*.—There were no deaths from yellow fever during the week ended February 6, 1890.

BAHAMAS—*Nassau, N. P.*—February 8, 1890. City is healthy. No influenza at present. Weather dry.

The Influenza.

The United States consul at Amsterdam furnishes the following translation from the *Algemeen Handelsblad*, Amsterdam, February 5, 1890:

As a proof that the influenza, or "griep," belongs to the "diseases which threaten the public health," and whereof, accordingly, the law should provide that physicians should have to report every case, Dr. Dozy, the inspector of the Medical Service (Geneeskundige Dienst) of this city, makes and publishes a comparison between the cases of death during the cholera epidemic of 1866 and the influenza plague of the present. In 1866, died at Amsterdam of cholera, 1,104 persons, whereof 711 were in the eight weeks between July 14 and September 8.

The greatest number of cases occurred during the first three weeks, and amounted, respectively, to 132, 128, and 112.

During the first three weeks of January, 1890, there died at Amsterdam, respectively, 168, 280, and 80 persons in excess of the corresponding three weeks of 1889, thus showing a greater death rate than that of 1866.

It should, however, be stated that the population of Amsterdam has since increased by fully 50 per cent.

Grippe.

[Translated for this Bureau from the *Boletina de Medicina Naval*, Madrid, January 15, 1890.]

Grippe is a non-contagious epidemic disease. It is always characterized by a certain benignity, but if precautions are not taken it develops into a serious malady, affecting the nervous centers of organic life, disturbing all the functions, and causing mortality by the complications which result from neglect of good regimen.

Grippe is easily cured; in itself it is not mortal, and becomes serious only in case of complications. In the extremes of life, represented by old age and infancy, it is most liable to assume a relative gravity; but during an epidemic no individual can escape its influence.

An attack of grippe manifests itself in a general chill, pains in back and limbs, headache, shivering fits, and fever. Bottles of hot water should be applied to the feet and remedies employed to induce perspiration—antipyrine, Dover's powders, tincture of aconite, salicylate of soda, and other analogous remedies.

Great care must be taken in convalescence to avoid exposure to changes of temperature.

Grippe is not an inflammatory but a nervous disease, and presents the symptom of debility before, during, and after the attack. In convalescence great weakness is felt, with a decline of appetite and a general depression as if the patient had passed through a crisis of infectious disease. The neglect of medical advice in this case may be of grave consequence.

When the crisis has not been favorable a persistent cough exposes the patient to the risk of contracting bronchial catarrh, pleurisy, and pneumonia.

The disease reaches its crisis in perspiration, and this should be favored as much as possible by remaining indoors and maintaining the temperature of the room at 16 degrees C., F. 62.

The crisis of grippe is easily recognized and the remedies employed during the disease should all be directed to producing perspiration, without which a cure will be extremely difficult.

The patient must keep his room and not leave his bed while the fever lasts. Nerve tonics and nutritious food must be used.

When an epidemic prevails common and ordinary diseases become complicated with it, and this double aspect claims attention.

Persons who have constitutional indispositions, such as asthma, heart lesions, and rheumatism, are advised to lead a regular, methodical life to avoid an attack.

Hygienic precautions are essential. Grippe may be considered a cowardly and treacherous enemy which waits an unguarded moment to seize its victim.

The best preventions of grippe are good food, warm clothing, moderation and temperance, and avoidance of exposure to cold.

There is no reason to credit the notion that grippe is the prelude of grave epidemics. Such an assertion has no foundation.

The microbe of influenza.

[Translated for this Bureau from *La Pratique Medicale*, Paris, February 4, 1889.]

The present epidemic of influenza has set all the bacteriological laboratories on an active search for the microbe of the disease.

At Paris, Vienna, and Berlin the microscope objective is directed to cultures, any one of which may hold the clew. Unfortunately, bacteriologists are not agreed, and their hasty work lacks the precision indispensable to studies of this nature.

Otto Seifert, of Wurzburg, analyzed the fresh expectoration of a patient attacked with grippe. After coloring this with methyl blue he found an immense quantity of a micrococcus, measuring (under a magnifying power of 350 diameters) 1.5 to 2 micro-millimeters in length and 1 micro-millimeter in breadth. These micrococci were for the most part arranged in long chains, in rare cases connected two by two (diplococcus), and frequently isolated one from the other (monococcus).

These micrococci were invariably in the gelatinous clots; their presence in many of the clear mucous fragments was also proved. As soon, however, as the secreted liquids became purulent the cellular elements predominated and the micrococcus diminished.

The micrococcus of influenza in no respect resembles that of the ordinary coryza.

Experiments in inoculation made by Seifert were attended with no results.

Max Gilles, of Vienna, has made many examinations of expectorations of influenza patients, and in all cases has found, generally in considerable quantity, the capsule micrococcus, which closely resembles Friedlander's diplococcus of pneumonia. At a depth in the gelatine it was round and granulous. Its coloration was yellow. On the surface of the gelatine it took the form of a hemisphere and had a porcelain reflection.

His experiments in inoculating rabbits were without result.

Ribbert, of Berlin, is also searching for the microbe of grippe. He has not found either the diplococcus of Friedlander, or the pneumococcus of Talamon and Fränkel in the six cases of "grippal" pneumonia observed by him. This form of pneumonia he considers due to a streptococcus, which should be none other than the streptococcus pyogenes. He found the same streptococcus in great abundance in the autopsies made by him of patients who had died from grippe not complicated with pneumonia.

It must be observed that the streptococcus is not always pyogenes, since it can cause non-suppurative inflammations, as in erysipelas. At any rate if it is not the pathogenic microbe of grippe it plays an important part in this disease.

In France, M. Duponchel observed three cases of grippe followed by pneumonia, but in not one did he find the capsule diplococcus of pneumonia. A mouse inoculated with the expectorations of one of the patients succumbed, but its blood and organs contained no capsule diplococcus.

M. Laveran has seldom found the pneumococcus in the infectious forms of grippal pneumonia, but he has found numerous streptococci in the expectorations. In no case did the blood contain streptococcus at the commencement of grippe.

Messieurs Chantmesse and Widal have never found the bacilli in the blood of persons who have been suffering for several hours with grippe, even when the temperature rose as high as 39° or 40°.

M. Vaillard and Dr. Vincent find as the result of their microscopic examinations of the blood and expectorations of persons attacked by grippe, an organism invariable and specific from the morphological point of view, a streptococcus resembling that of erysipelas. These streptococci were also found by M. du Cayal in the expectorations of fourteen patients.

M. Netter found the pneumococcus and the streptococcus pyogenes in the same individual suffering from pneumonia, and in a case of broncho-pneumonia he found at the same time the pneumococcus and the streptococcus. The same was true of two cases of otitis. M. Netter prudently concludes that neither the streptococcus nor the pneumococcus should be recognized as the yet undetermined pathogenic agent of grippe.

The two microbes are found normally in the mouth of healthy subjects. They, no doubt, acquire a virulence in the course of the disease.

M. Bouchard lately informed the Academy that he had found three pathogenic microbes in grippe; two too many if we would determine the pathogenic agent of grippe. These microbes, which are found habitually in a healthy state, are the staphylococcus aureus, the pneumococcus, and the streptococcus. The last-named organism is the one most frequently observed in the pathologic products of grippe during the last epidemic.

M. Bordas always found the diplococcus lanceolate of Pasteur and Talamon in the lungs of persons who had succumbed to fibrous or lobar pneumonia. In these cases the inoculations made with fibrine exudations did not furnish a pure pneumococcus culture. The streptococcus pyogenes and the staphylococcus aureus were observed.

In brief, in pneumonia, supervening in the course of grippe, we find the pneumococcus, the streptococcus, and the staphylococcus pyogenes. These microbes, in provoking pneumonia, may acquire a virulence which does not belong to them, or may develop a hitherto obscure virulence.

Dr. Klebs finds in the blood of persons who have died from influenza a great number of small bodies in rapid motion, which recall, by their size, form, and movements, the micro-organisms noted by the same author in pernicious anaemia. These organisms are the flagellæ.

Decrease of cholera in Mesopotamia and modification of quarantine restrictions.

The United States consul at Beirut, in his dispatch dated January 9, 1890, says:

With further reference to the cholera in Mesopotamia (Turkey in Asia), the subject of my dispatches Nos. 304 and 305, I now have the honor to acquaint the Department with the latest intelligence from the health office, to the effect that no cholera cases have been reported in Mesopotamia for the last twelve days, and the quarantine applied to arrivals by sea from Bassorah and the Persian Gulf is reduced from ten to five days for all departures on and after the 17th of December. The quarantine applicable to arrivals from Mesopotamia, including Mossoul, by the rivers, is reduced from fifteen days to eight, beginning from the departures on the date above mentioned.

Prevention of tuberculosis.

[Translated for this Bureau from the *Journal d'Hygiène*, Paris, January 30, 1890.]

At one of the last meetings of the Academy Dr. Victor Widai presented some observations and statistics in support of the theory of the contagion of tuberculosis. He says:

"Pulmonary phthisis, which was very rare in Algeria in the early days of the French occupation of the country, shows a tendency to become as frequent in Algeria as in France. If it can not be demonstrated that the French introduced the disease, they have at least propagated it. It is a question if the increase of the disease is not due in part to the constantly increasing number of consumptives who, for the twenty years past, have wintered in Algeria, where they spread contagion. Also, if the consumptives sent to the Mediterranean seaboard of France do not contaminate the population."

On the other hand, the increase of pulmonary diseases in Algeria may be due to changes in the habits and manner of living of the natives, resulting from their contact with European civilization and to the introduction of macadamized streets in a country of high and frequent winds, where the dust, charged with calcareous salts, is blown in clouds, producing an irritating effect on the bronchial tubes.